



CPP (Command Post Platform) Shelter Paradigm Shifts

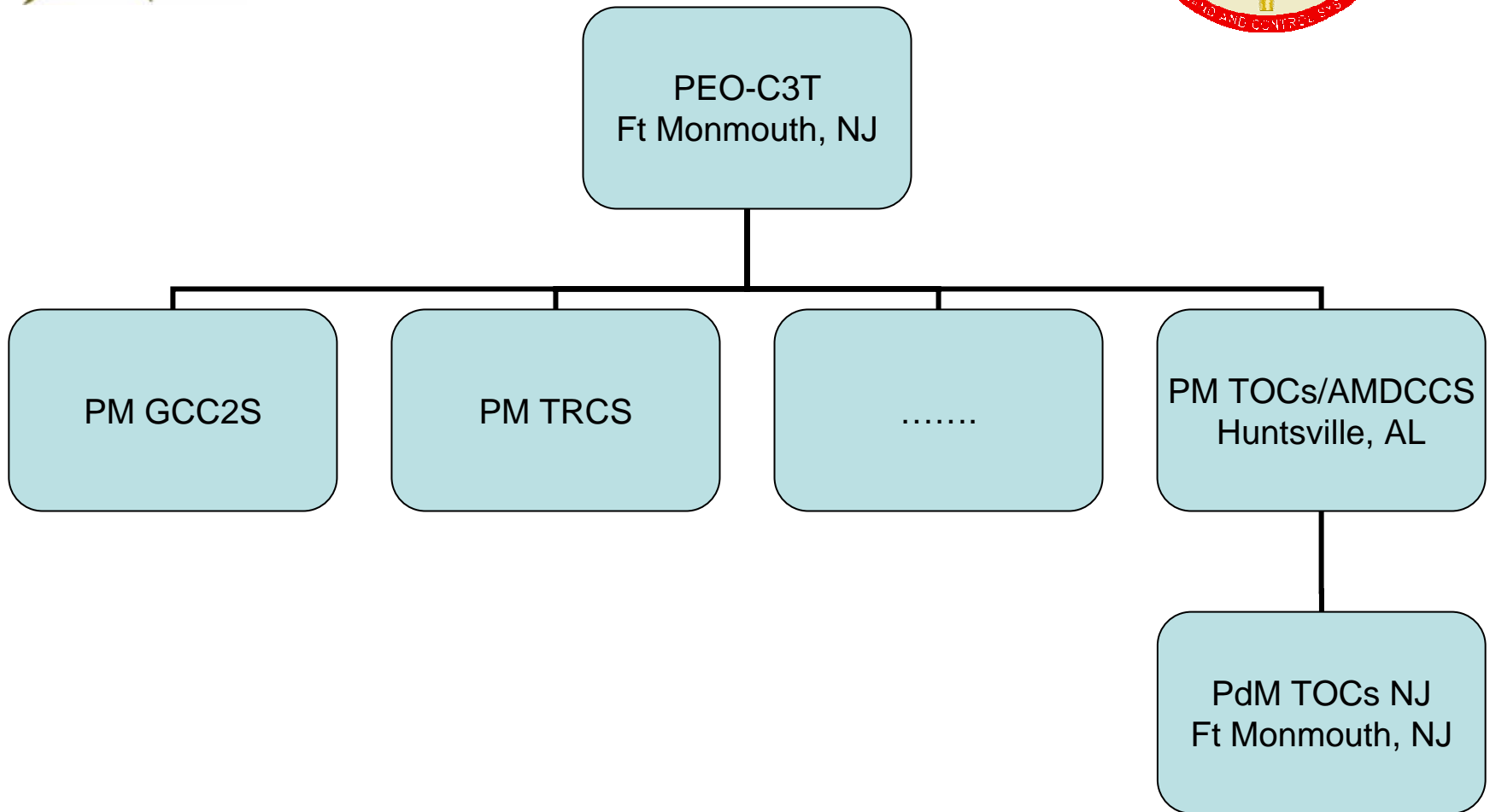
Rick Flanigan

PdM TOCs NJ Chief Engineer

richard.flanigan@mail1.monmouth.army.mil

732-427-5327

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE MAY 2005		2. REPORT TYPE		3. DATES COVERED 00-00-2005 to 00-00-2005	
4. TITLE AND SUBTITLE CPP (Command Post Platform) Shelter Paradigm Shifts				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) PdM Tactical Operations Centers,Fort Monmouth,NJ,07703				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES 4th Bi-Annual DOD JOCOTAS Meeting with Rigid & Soft Wall Shelter Industry & Outdoor Exhibition, 2-4 May 2005, Port Hueneme, CA					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 14	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			



Shelter History

- V-1 Shelter, designed by Natick, late 1980s, 255 produced early 1990s.
- V-3 Shelter, pre-production prototypes, 6 produced for testing.
- V-4 Shelter, based on Natick design but modified by Gichner Shelter Systems, 507 produced 1996 – 2002.
- V-5 Shelter, based on Natick design but modified by Marion Composites (now GD/ATP Marion Operations), 110 ordered, 2001 – 2006.

Shelter Commonality

- ALL of the above shelters have the same basic dimensions; 102 in long, 84 in wide, 67 in high.
- ALL of the above shelters have 1 fixed interior workstation with crew seat and work surface for on-the-move operations.
- ALL of the above shelters have left side, right side and forward equipment racks.
- Represents 20 yrs of shelter design & production and almost 900 shelters.

CPP Changes Dimensions

- Length is reduced by 12 inches, new length 90 inches.
 - Shelter does not overhang the truck bed
 - No need for a pintel extension, saves 50 lbs.
 - Shifts CG forward, HMMWV rear axel loading has been a problem.
 - Shifts trailer tongue load (200 – 300 lbs) 12 inches forward, also helps with rear axel loading.

V-5 Shelter, 102 in length overhangs truck bed



CPP Changes Operating Concept

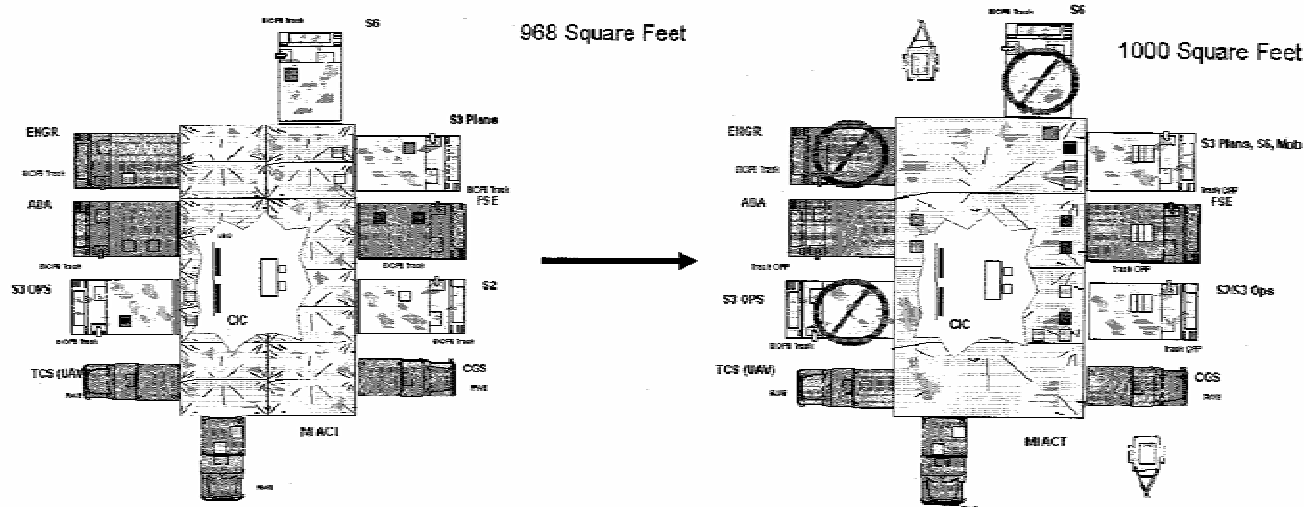
- No operator inside the shelter
 - Eliminates crew seat and seat belt
 - Eliminates Chem/Bio filter (GPFU)
 - Retains ECU for equipment cooling
 - Retains onboard APU to power shelter equipment
- On-the-Move operations accomplished from HMMWV cab, passenger seat
 - Digital comms via laptop and LAN connection to routers, switches, and radios inside shelter
 - Voice comms via cab intercom connection to radios inside shelter

CPP Changes Tent Concept

- All workstations located in the tent
 - Computers remain inside shelter
 - MPU (Multiple Processor Unit) can run 4 ABCS applications at once, MCS, ASAS, AMDCCS, etc.
 - Keyboard Video Mouse connections on TIP
 - Intercom connections on TIP
- Tent requires environmental control
 - TMSS (Trailer Mounted Support System)
 - Trailer with 20KW gen, 60K btu/hr ECU, ducting, and medium tent



CP Design (Mech Bde)



- Stove pipe platforms
- Two BFA boxes per platform
- Multiple small tents
- No environmental control
- 5-Ton not C-130 deployable

- Multifunctional platforms
- Up to 5 BFA applications per platform
- Medium/Large Tents w/open environment
- Environmental Control
- All platforms C-130 deployable

CPP Changes Tent Design

- Standard SICPS tent no longer used for TOCs
 - 11ft by 11ft, when complexed together, tent poles every 11 ft.
- Medium tent about the size of 4 SICPS tents
- Large tent about the size of 8 SICPS tents

CPP Changes Power System

- Onboard APU is 3 phase 208 volt ac, 10kw
- ECU is 3 phase 208 volt
- Import power, if used, will have to be 3 phase 208 volt

CPP Changes rack layout

- Left side and right side racks go all the way from the back wall to the front wall.
- No front equipment racks.
- Power control is from a TIP.

CPP Advantages

- Reduces the footprint of the TOC by reducing the number of vehicles.
- Fewer C-130s to deploy.
- Reduces set-up and tear down time by leaving the computers and LAN equipment in the shelter. Only 1 tent to set up.
- Environmentally controlled tent.
- Planned Product Improvement – Secure wireless LAN vehicle to vehicle.

Standard Shelter Availability

- 110 V-5s on order will be delivered by Sep 30 05
 - ~80 by April 30 2005
- Will probably only order another 20 – 100 V-5 shelters in 2006.
 - V-5 shelter users have requests / needs for about another 100.
 - V-5 shelter users have only funded about another 20.
- V-5 production contract ends in Sep 2006.